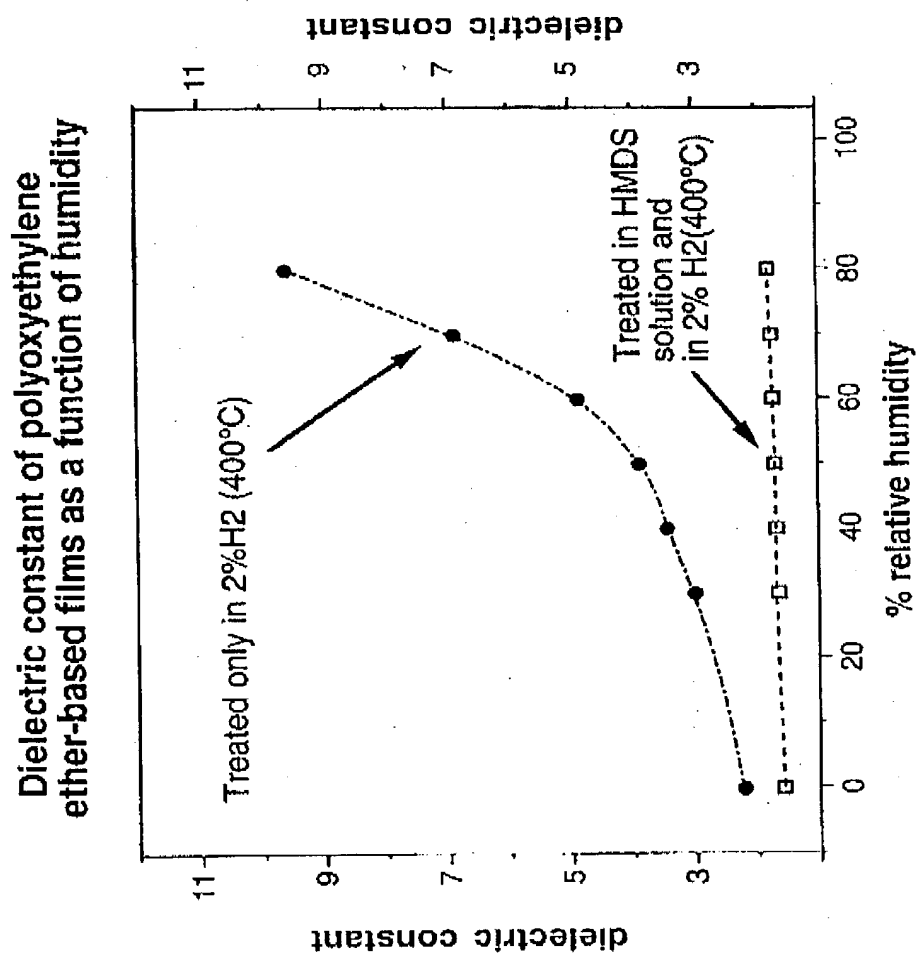


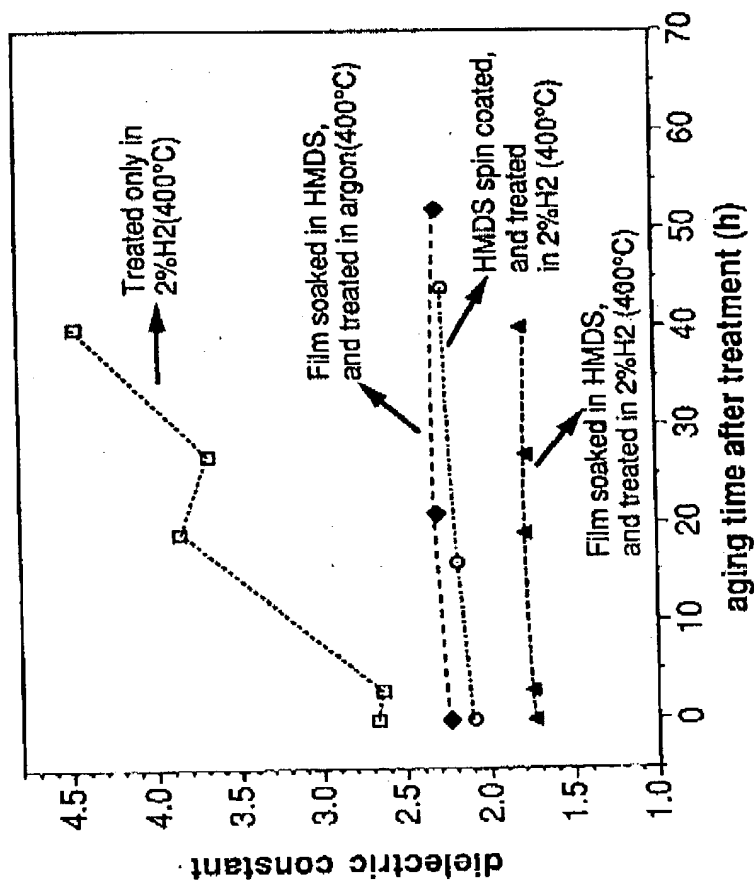
Exhibit A



Dielectric constant for films with $k < 2.0$ increases by $\approx 13\%$ with increase in humidity from 0 to 80%

Exhibit B

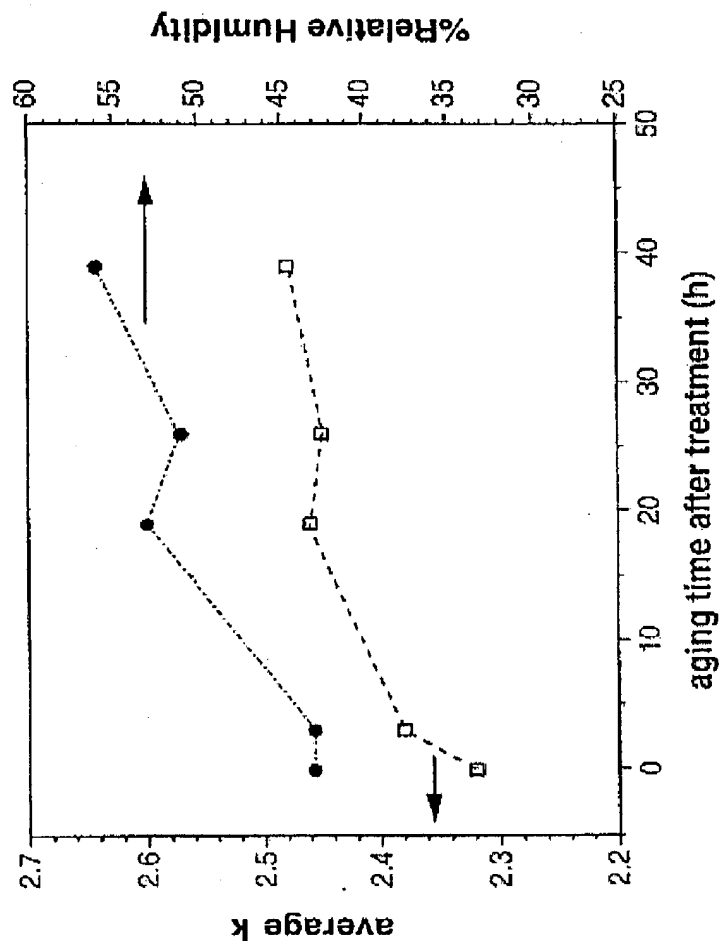
Dielectric constants in the range 1.8 to 2.5
obtained with polyoxyethylene ether surfactants



Dielectric constant very sensitive to dehydroxylation procedure

CTAC pore former, with CTAC/TEOS mole ratio = 0.2

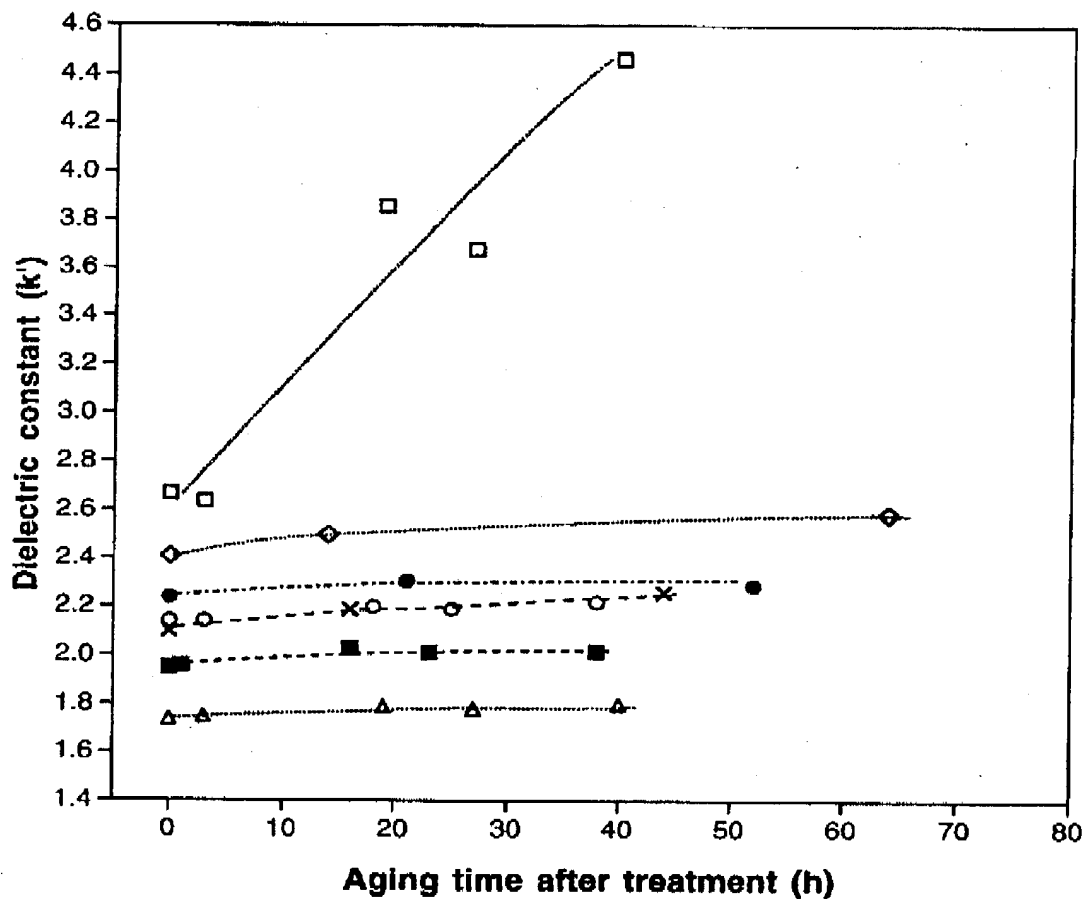
Acid-washed film treated in HMDS solution and 2%H₂ (400°C, 3h)



$k \approx 2.3$ measured in laboratory ambient

Exhibit C

Figure 1: Dielectric constant of surfactant-templated silica films as a function of aging time under ambient conditions as a function of various treatments



- 2%H2, 2h, 400°C (103-2-1-B1)
- ◇ HMDS (L) >> 2%H2, 2h, 400°C (XL-92-2)
- HMDS (L) >> 2%H2, 2h, 400°C >> HMDS(L) (103-2-1-A1)
- △ HMDS (L) >> 2%H2, 2h, 400°C >> HMDS(L) >> 2%H2, 2h, 400°C (103-2-1-A2)
- HMDS (L) >> Ar, 2h, 400°C (103-2-1-B2)
- HMDS(L) >> Ar, 2h, 400°C >> HMDS(L) >> Ar, 2h, 400°C (112-1-III-D2)
- x HMDS spincoat >> 2%H2, 2h, 400°C >> HMDS spin coat >> 2%H2, 2h, 400°C (103-2-1-C1)

X

Exhibit D

inventors - signatures with dates

witnesses - signatures with dates